

WHAT IS CLAIMED IS:

1. A method for automatically determining a multi-switch
type for a multi-switch attached to a receiver, the method comprising the steps
of:

generating a first control signal at a multi-switch connection port,
the first control signal being designed to address a first port of a first type of
multi-switch;

determining if a first predetermined marker pattern is received
within a first predetermined time limit after generating the first control signal,
the first predetermined marker pattern having a first identification code;

generating a second control signal at the multi-switch
connection port, the second control signal being designed to address a
second port of the first type of multi-switch;

determining if a second predetermined marker pattern is
received within a second predetermined time limit after generating the second
control signal, the second predetermined marker pattern having a second
identification code;

determining if the first identification code is equal to the second
identification code; and

determining that the multi-switch type is the first type of multi-
switch if the first identification code is not equal to the second identification
code.

2. A method as defined in claim 1, wherein the step of generating a first control signal at a multi-switch connection port, comprises the step of generating a DiSEqC control signal at the multi-switch connection port.

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3. A method as defined in claim 1, wherein the step of generating a first control signal at a multi-switch connection port, comprises the step of generating a tone control signal at the multi-switch connection port.

4. A method as defined in claim 1, wherein the step of generating a first control signal at a multi-switch connection port, comprises the step of generating 13 volts at the multi-switch connection port.

5. A method as defined in claim 1, wherein the step of generating a first control signal at a multi-switch connection port, comprises the step of generating 18 volts at the multi-switch connection port.

6. A method as defined in claim 1, wherein the step of determining if a first predetermined marker pattern is received, comprises the step of determining if the first predetermined marker pattern is received on a service channel, the service channel having an identification number of 0x810.

7. A method as defined in claim 1, further comprising the step of determining that the multi-switch type is the first type of multi-switch if the step of determining if a first predetermined marker pattern is received determines that the first predetermined marker pattern is received and the step of determining if a second predetermined marker pattern is received determines that the second predetermined marker pattern is not received.

8. A method as defined in claim 1, further comprising the steps of:

generating a third control signal at the multi-switch connection port, the third control signal being designed to address a first port of a second type of multi-switch;

determining if a third predetermined marker pattern is received within a third predetermined time limit after generating the third control signal, the third predetermined marker pattern having a third identification code;

generating a fourth control signal at the multi-switch connection port, the fourth control signal being designed to address a second port of the second type of multi-switch;

determining if a fourth predetermined marker pattern is received within a fourth predetermined time limit after generating the fourth control signal, the fourth predetermined marker pattern having a fourth identification code;

determining if the third identification code is equal to the fourth identification code; and

determining that the multi-switch type is the second type of multi-switch if the third identification code is not equal to the fourth identification code.

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9. A method as defined in claim 8, wherein the step of generating a first control signal at the multi-switch connection port, comprises the step of generating a DiSEqC control signal at the multi-switch connection port and the step of generating a third control signal at the multi-switch connection port, comprises the step of generating a tone control signal at the multi-switch connection port.

10. A method as defined in claim 8, wherein the step of generating a third control signal at the multi-switch connection port, comprises the step of generating 13 volts at the multi-switch connection port.

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11. A method as defined in claim 8, wherein the step of generating a third control signal at the multi-switch connection port, comprises the step of generating 18 volts at the multi-switch connection port.

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12. A method as defined in claim 8, wherein the step of determining if a third predetermined marker pattern is received, comprises the step of determining if the third predetermined marker pattern is received on a

service channel, the service channel having an identification number of 0x810.

13. A method as defined in claim 8, further comprising the step of determining that the multi-switch type is the second type of multi-switch if the step of determining if a third predetermined marker pattern is received determines that the third predetermined marker pattern is received and the step of determining if a fourth predetermined marker pattern is received determines that the fourth predetermined marker pattern is not received.

14. A method as defined in claim 8, wherein the first predetermined time limit, the second predetermined time limit, the third predetermined time limit, and the fourth predetermined time limit are equal.

15. An integrated receiver/decoder for use in a direct-to-home satellite system, the integrated receiver/decoder comprising:

a receiver for receiving direct-to-home satellite television signals;

a multi-switch connection port coupled to the receiver for selecting direct-to-home satellite television signals; and

a controller operatively coupled to the receiver and the multi-switch connection port, the controller comprising a microprocessor and a memory device, the memory device storing a software program;

the software program being designed to generate a first control signal at the multi-switch connection port, the first control signal being designed to address a first port of a first type of multi-switch;

the software program being designed to determine if a first predetermined marker pattern is received within a first predetermined time limit after generating the first control signal, the first predetermined marker pattern having a first identification code;

the software program being designed to generate a second control signal at the multi-switch connection port, the second control signal being designed to address a second port of the first type of multi-switch;

the software program being designed to determine if a second predetermined marker pattern is received within a second predetermined time limit after generating the second control signal, the second predetermined marker pattern having a second identification code;

the software program being designed to determine if the first identification code is equal to the second identification code; and

the software program being designed to determine that the multi-switch type is the first type of multi-switch if the first identification code is not equal to the second identification code.

16. An integrated receiver/decoder as defined in claim 15, wherein the software program is designed to generate a DiSEqC control signal at the multi-switch connection port.

17. An integrated receiver/decoder as defined in claim 15, wherein the software program is designed to generate a tone control signal at the multi-switch connection port.

5 18. An integrated receiver/decoder as defined in claim 15, wherein the software program is designed to determine that the multi-switch type is the first type of multi-switch if the first predetermined marker pattern is received and the second predetermined marker pattern is not received.

10 19. An integrated receiver/decoder as defined in claim 15, wherein:

the software program is designed to generate a third control signal at the multi-switch connection port, the third control signal being designed to address a first port of a second type of multi-switch;

15 the software program being designed to determine if a third predetermined marker pattern is received within a third predetermined time limit after generating the third control signal, the third predetermined marker pattern having a third identification code;

20 the software program being designed to generate a fourth control signal at the multi-switch connection port, the fourth control signal being designed to address a second port of the second type of multi-switch;

the software program being designed to determine if a fourth predetermined marker pattern is received within a fourth predetermined time

limit after generating the fourth control signal, the fourth predetermined marker pattern having a fourth identification code;

the software program being designed to determine if the third identification code is equal to the fourth identification code; and

5 the software program being designed to determine that the multi-switch type is the second type of multi-switch if the third identification code is not equal to the fourth identification code.

10 20. An integrated receiver/decoder as defined in claim 19, wherein the software program is designed to generate a DiSEqC control signal at the multi-switch connection port and a tone control signal at the multi-switch connection port.

15 21. An integrated receiver/decoder as defined in claim 19, wherein the software program is designed to determine that the multi-switch type is the second type of multi-switch if the third predetermined marker pattern is received and the fourth predetermined marker pattern is not received.